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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,682	07/24/2003	Nam Su Choi	2336-197	1100

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EXAMINER
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LEE, MICHAEL

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/625,682	Applicant(s) CHOI ET AL.	
	Examiner M. Lee	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/8/04, 1/21/05</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Gardner et al. (5,592,234).

Regarding claim 1, Gardner shows an interface connector (48,52), which meets the claimed connector means, a digital logic and memory controller, which meets the claimed microprocessor, a tuner 56.1, which meets the claimed tuner means, and an inherently included audio signal processing circuit for processing the audio signal received from tuner 56.1, which meets the audio processor as claimed. It should be noted that the digital logic and memory controller 56.2 communicates directly with microprocessor 38 from a television receiver 10 and controls the tuning operations of the tuner 56.1. The controller inherently includes at least one program memory, such as ROM, for controlling the tuning operations. Gardner also shows that the RF signal can be received from either an antenna (Figure 2) or a cable (Figure 5).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner et al. (5,592,234) in view of Jung (6,483,553).

Regarding claim 2, Gardner does not specify that the microprocessor includes an analog broadcast/digital broadcast selection signal as claimed. Instead, Gardner shows two embodiments (Figures 2 and 5) each using an analog tuner and a digital tuner for receiving the respective analog and digital television signals, and each has a digital controller for carrying out the tuning operations. This setup can be costly and inefficient because two separate tuners and controllers are needed. In order to solve above problems, Jung teaches that the two should be combined into a single receiver unit (see col. 5, lines 22-28). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the analog/digital hybrid feature of Jung into Gardner to perform the well known functions as claimed.

Regarding claim 3, see Figure 5 of Jung.

Regarding claim 4, Gardner shows a power terminal (power supply 40), a transmission terminal 44, a reception terminal 54, and an A/V terminal (analog section in 56.2). But Gardner does not specify the video signal terminal and audio signal terminal as claimed. Jung teaches a video decoder 1400 and an audio decoder 1300 for decoding both the video signal and the audio signal, respectively. By using separate audio and video decoders on the digital tuner and the analog tuner, signal processing constraint problems caused by single combined decoder can be avoided. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention

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was made to include the video and audio decoders of Jung into Gardner to perform the well known functions as claimed.

Regarding claim 5, see connector 48.

Regarding claim 6, in addition of above, Gardner further shows a power supply 40, a remote control 34, which meets the key input as claimed, a microprocessor 38, which meets the claimed controller, a signal processor 26, a display unit 30, and a speaker 20.

Regarding claim 7, Gardner shows a plurality of power outputs (see 40).

Although not shown, the outputs could be different voltages.

Regarding claim 8, see rejection to claim 4.

Regarding claim 9, see rejection to claim 5.

Regarding claim 10, see tuner 56.1.

Regarding claim 11, Gardner does not specify the plasma display panel as claimed. Instead, a CRT is shown. In any event, the display device in Gardner is clearly not limited to CRT because a CRT display can be replaced with any known display device. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the CRT with a plasma display panel to perform the well known functions as claimed.

Regarding claim 12, see rejection to claim 6.

Regarding claim 13, see rejection to claim 7.

Regarding claim 14, see rejection to claim 4.

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Regarding claim 15, in addition of rejection to claim 11, replacing the CRT with a LCD display would have been obvious.

Regarding claim 16, in addition of rejection to claim 6, the connector 48 and plug 54, respectively meet the first and second connectors as claimed.

Regarding claim 17, see rejection to claim 1.

Regarding claim 18, see rejection to claim 2.

Regarding claim 19, see rejection to claim 3.

Regarding claim 20, see rejection to claim 4.

Regarding claim 21, see rejection to claim 5.

Regarding claim 22, see rejection to claim 6.

Regarding claim 23, see rejection to claim 7.

Regarding claim 24, see rejection to claim 4.

Regarding claim 25, see rejection to claim 5.

Regarding claim 26, see rejection to claim 10.

Regarding claims 27-29, see rejection to claim 15.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mudra et al. (5,949,493) shows a removable panel.

Bertin et al. (2004/0025188) shows a connector.

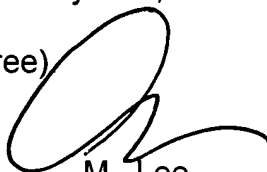
Suematsu et al. (7,020,890) shows a external power supply.

Suzuki et al. (5,134,486) shows a power supply circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Lee whose telephone number 571-272-7349. The examiner can normally be reached on Monday through Thursday from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz, can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

A handwritten signature in black ink, appearing to be 'M. Lee', with a large loop at the start and a trailing flourish.

M. Lee  
Primary Examiner  
Art Unit 2622